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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/622,356	08/15/2000	Wolfgang Scholl	VAL-487-A	3584

7590 10/23/2003

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EXAMINER

BALSIS, SHAY L

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 10/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/622,356

Applicant(s)

SCHOLL ET AL.

Examiner

Shay L Balsis

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1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 9-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 states the limitation “a co-axial rolling-contact bearing” however, Examiner is confused as to what the bearing is co-axial with? What axes is the Applicant stating are co-axial?

Claim 14 states the limitation of “wobble riveting” however, since wobble riveting is a process what feature does it impart to the invention? Claim 14 is an apparatus claim and therefore in order to have wobble riveting hold any patentable weight it must impart some feature to the invention.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 9-10, 12-15, 17-18, 20-23, 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schill et al. (USPN 5884357) in view of Enger-Wagner (GB 2145168).

Schill et al. discloses a 4-joint wiper arrangement for cleaning windows of vehicles. The wiper comprises a connecting rod that is pivotally connected to a drive arm at a first bearing point and to a control arm at a second bearing point. There is a hinged part that connects the connecting rod to the wiper arm. The wiper blade is attached to the wiper arm thus, the spring force from the hinge causes the wiper blade to be pressed against the windshield. Schill et al. fails to teach a rolling contact bearing at the first bearing point. Instead the reference teaches a ball and socket joint.

Enger-Walter teaches a connecting gear for a windshield wiper that comprises a deep-groove ball bearing (15). The outer ring (16) of the ball bearing is axially secured and held so that it does not rotate in a recess of the connecting rod. A pin (13) is fitted into the inner ring (14) of the ball bearing and is axially secured and non-rotatably held (lines 67-75). With respect to claims 13, insofar as the examiner understands the pin used in the Enger-Walter reference is riveted. The riveted bolt is secured by wobble riveting as well as the inner ring of the deep-groove ball bearing (as shown in figure 2). There is a flange in the middle region of the crank arm (10) and the connecting rod (11). Schill et al. and Enger-Walter are analogous art because they are from the same field of endeavor of windshield wiper. At the time of the invention, it

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would have been obvious to a person of ordinary skill in the art to use Enger-Walter's deep groove ball bearings in place of Schill's ball and socket joint. The motivation for doing so would have been to increase the life of the pivot point, since it is known in the art that ball bearings last longer than a ball and socket. Enger-Walter teaches replacing ball and socket joints connecting the drive member and the connecting rod with deep groove ball bearings because they wear better and last longer (page 1, lines 31-66). Therefore, it would have been obvious to combine Enger-Walter's deep groove ball bearing connection with Schill's ball and socket joint so as to get more life out of the joint/connection.

5. Claims 11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schill et al. (USPN 5884357).

Schill et al. discloses the claimed invention except he is silent about what material the drive arm and control arm are made of. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the arms out of sheet metal, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. In re Leshin, 125 USPQ 416.

6. Claims 16 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schill et al. (USPN 5884357) in view of Enger-Wagner (GB 2145168) as applied to claims 9 and 17 above and in further view of Roodenburg et al. (USPN 5009412).

Schill et al. in view of Enger-Wagner disclose all the essential elements of the claimed invention however, the references fail to teach replacing the *second* bearing point (11), which is a universal joint, with a ball bearing. Roodenburg et al. teaches that ball bearings and universal

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joints are interchangeable however, since universal joints are more expensive, ball bearing joints are therefore preferred (col. 1, lines 35-41). It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Roodenburg's teaching that ball bearing joints are preferred over universal joints to Schill in view of Enger-Wagner's invention.

7. Claims 16 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schill et al. (USPN 5884357) in view of Enger-Wagner (GB 2145168) as applied to claims 9 and 17 above and in further view of Young (USPN 5934589).

Young in view of Enger-Wagner disclose all the essential elements of the claimed invention however, the references fail to teach replacing the *second* bearing point (11), which is a universal joint, with a ball bearing. It is recognized that the figures 4 and 5 of the Schill reference indicate that the universal joint is a bushing joint. Young et al. teaches that ball bearings are preferred over conventional simple bushing. The ball bearings increase frictional independence between the shaft and the pinion (col. 2, lines 18-31). It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Young's teaching that ball bearing joints are preferred over bushings to Schill in view of Enger-Wagner's invention.

Applicant's arguments

8.

- a) Enger-Walter and Schill et al. are non analogous art.
- b) Even if Enger-Walter and Schill were analogous art, the combination of the references fails to teach co-axial rolling-contact bearings.
- c) The prior art does not disclose the feature of claim 14 wherein the riveted bolt is secured by wobble riveting.

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d) Roodenburg and Young do not teach deep groove ball bearing in the art of four-hinge wiper arms.

Response to Arguments

9. a) In response to applicant's argument that Schill et al. and Enger-Walter are nonanalogous art, it has been held that prior art references must either be in the field of endeavor or, if not, then be reasonably pertinent to the particular problem to be solved, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Schill and Enger-Walter both deal with joints connecting windshield wipers to drive arms.

b) Since it is unclear as to what "co-axial" is with reference to, it can be seen that inner ring (14) is co-axial with rivet (13). While figure 2 of Enger-Walter shows the rivet at an extreme point, this is not always the case. There is a point when the inner ring (14) and the outer ring (16) are co-axial.

c) Wobble riveting is a process as stated in the Applicant's remarks, page 8. Therefore, it imparts any new features to the apparatus.

d) Roodenburg and Young are merely teaching that ball bearing joints and universal joints are analogous and therefore can be used interchangeably. Additionally they teach that ball bearing joints are preferred since universal joints are more expensive. While, the references are not windshield wiper units, the references are just used as a tertiary reference to show the above point.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

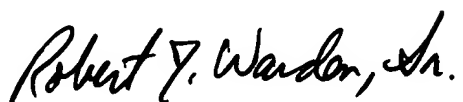
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shay L Balsis whose telephone number is 703-305-7275. The examiner can normally be reached on 7:30-5:00 M-Th, alternating F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Warden can be reached on 703-308-2920. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5665.

Slb
10/14/03


ROBERT J. WARDEN, SR.
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